CONGRESSIONAL BUDGET OFFICE
PAY-AS-YOU-GO ESTIMATE

June 25, 2002

H.R. 4
Energy Policy Act of 2002

As passed by the Senate on April 25, 2002

SUMMARY

H.R. 4 would amend existing and establish new laws relating to energy regulation, production, consumption, research and development. Tax provisions in H.R. 4 would enhance and create credits for the use and development of energy-efficient technologies, provide greater recovery of assets and credits for businesses that provide energy, and enhance and create tax credits and deductions for the production of energy.

H.R. 4 would provide new borrowing authority for the Bonneville Power Administration (BPA) to upgrade and build electricity transmission lines and would establish a new system for regulating the reliability of the nation's electricity transmission system. Such a regulatory system would entail assessments on the electricity industry. Additionally, the act would create incentives for the production and use of certain renewable fuels. Such incentives would result in a reduction in the cost of subsidies provided by the Department of Agriculture (USDA) for certain crops. Finally, under the act, certain amounts equivalent to tax credits would be available to the Tennessee Valley Authority (TVA) and rural electric cooperatives in the form of credits that could be used to pay sums owed to the Treasury.

CBO and the Joint Committee on Taxation (JCT) estimate that enacting the Senate version of H.R. 4 would decrease revenues by about $1.2 billion in 2003, $14.1 billion over the 2003-2007 period, and by $19.8 billion over the 2003-2012 period. CBO estimates that enacting this legislation would reduce direct spending by $17 million in 2003, increase direct spending by $78 million over the 2003-2007 period, and reduce direct spending by about $1.1 billion over the 2003-2012 period.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

CBO's estimate of the impact of H.R. 4 on direct spending and revenues is shown in the following table. This estimate includes all costs of the act that would not be subject to appropriation. The direct spending effects of this legislation fall within budget functions 270 (energy) and 350 (agriculture).

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 4 will be enacted near the beginning of fiscal year 2003. The act's effects on revenues and direct spending are discussed below.

Revenues

JCT provided estimates for Division H, the Renewable Portfolio Standard, and the Renewable Fuels Mandate. For the years 2006 through 2012, CBO estimated the revenue effects of the provision providing a tax credit and excise tax rate reduction for biodiesel fuel mixtures. CBO also estimated the revenue effect of assessments on the electricity industry and other provisions with negligible effects. In total, JCT and CBO estimate the act would decrease revenues by about $1.2 billion in 2003, $14.1 billion over the 2003-2007 period, and by $19.8 billion over the 2003-2012 period.

Energy Tax Incentives. Six provisions in Division H would comprise a significant portion of the act's effect on revenues. Those provisions would extend the tax credit for producing energy from certain sources, extend the tax credit for purchase of alternative motor vehicles, and modify the tax credit for purchase of electric vehicles. They also would establish a statutory 15-year recovery period for natural gas distribution lines, expand the tax credit for certain qualifying fuels produced from coal to fuels produced in facilities placed in service after the date of enactment, and modify the rules governing certain requirements for contributions to, and transfers of, qualified nuclear decommissioning funds. JCT estimates that enacting of the provisions in Division H would reduce revenues by $1.2 billion in 2003, $13.3 billion over the 2003-2007 period, and $15.1 billion over the 2003-2012 period.

ESTIMATED REVENUE AND DIRECT SPENDING EFFECTS OF H.R. 4

	By Fiscal Year, in Millions of Dollars									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CHANGES IN REVENUES [a]										
Energy Tax Incentives										
Estimated Revenues	-1,153	-2,679	-3,841	-3,835	-1,849	-409	-248	-277	-434	-729
Renewable Portfolio Standard										
Estimated Revenues	0	0	0	-20	-40	-50	-54	-55	-56	-57
Renewable Fuels Mandate, Net Loss of Gas Taxes										
Estimated Revenues	-42	-101	-185	-291	-396	-495	-622	-754	-881	-1,008
Mandatory Electric Reliability Assessments										
Estimated Revenues	0	75	77	78	80	81	83	84	86	88
Total Changes in Revenues	-1,195	-2,705	-3,949	-4,068	-2,205	-873	-841	-1,002	-1,285	-1,706
CHANGES IN DIRECT SPENDING										
Borrowing Authority for BPA										
Estimated Budget Authority	100	300	300	300	300	100	0	0	0	0
Estimated Outlays	20	110	240	300	300	260	140	30	0	0
Electric Reliability Organization										
Estimated Budget Authority	0	100	102	104	106	110	112	114	116	120
Estimated Outlays	0	100	102	104	106	110	112	114	116	120
Effect of Renewable Fuels Mandate on Spending for Farm Programs										
Estimated Budget Authority	-44	-133	-240	-352	-489	-428	-484	-407	-402	-354
Estimated Outlays	-44	-133	-240	-352	-489	-428	-484	-407	-402	-354
Effect of Biodiesal Tax Credits on Spending for Farm Programs										
Estimated Budget Authority	-13	-16	-19	-26	-32	-29	-36	-30	-25	-18
Estimated Outlays	-13	-16	-19	-26	-32	-29	-36	-30	-25	-18
Credits for Clean Coal Technologies used by TVA										
Estimated Budget Authority	0	10	10	10	10	10	10	10	10	10
Estimated Outlays	0	10	10	10	10	10	10	10	10	10
Credits for Clean Coal and Renewable Technologies used by Rural Electric Cooperatives										
Estimated Budget Authority	20	0	0	0	0	0	0	0	0	0
Estimated Outlays	20	0	0	0	0	0	0	0	0	0
Total Changes in Direct Spending										
Estimated Budget Authority	63	261	153	36	-105	-237	-398	-313	-301	-242
Estimated Outlays	-17	71	93	36	-105	-77	-258	-283	-301	-242

a. Estimated revenues for Energy Tax Incentives, Renewable Portfolio Standard, and Renewable Fuels Mandate provided by JCT.

Division H would provide for an income tax credit and a reduction in the excise tax rate on purchases of biodiesel fuel mixtures (a combination of diesel fuel and vegetable oil). These provisions would expire on December 31, 2005, but budget law requires CBO to treat excise taxes dedicated to trust funds as permanent, even if they expire during the projection period. Thus, CBO estimates that the provision would reduce revenues by an additional $73 million over the 2006-2007 period and by a total of $425 million from 2003 through 2012.

Also in Division H, certain clean coal and renewable energy tax credits would be available to the Tennessee Valley Authority and rural electric cooperatives in the form of credits that could be used to pay sums owed to Treasury. CBO has adjusted the JCT revenue estimate by showing the portion of the budgetary impact attributed to these entities as direct spending instead of as revenue losses because TVA and the cooperatives are nontaxable entities. Instead of taking tax credits under this provision they would be eligible to take cash-equivalent credits against amounts currently owed in repayment to the Treasury. Those credits would cost $20 million in 2003 and $110 million over the 2003-2012 period. Thus, CBO adjusted JCT's total revenue estimates by the corresponding amounts.

Overall, JCT and CBO estimate that Division H would reduce revenues by $13.4 billion over the 2003-2007 period and by $15.5 billion over the 2003-2012 period.

Renewable Portfolio Standard. Section 264 would require that, starting in 2005, retail electric suppliers increase the amount of renewable energy production by certain amounts each year. Such production would be measured from a base amount and would equal an additional 10 percent of a supplier’s energy generation by 2020. In the years 2020 through 2030 it would be required to stay at or above that level. The Department of Energy (DOE) would oversee a system for trading credits that represent renewable energy generated so that suppliers who could not meet the requirement could instead purchase the credits from other electric suppliers.

JCT expects that the new program would encourage more use of the existing tax credit for renewable electricity production. Based on estimates of the additional renewable energy required to meet the standard imposed by the act, JCT estimates that the increased use of this tax credit would begin in 2006, and would reduce revenues by $60 million over the 2003-2007 period and by $332 million over the 2003-2012 period.

Renewable Fuels Mandate. Section 820 would require that motor fuels sold by a refiner, blender, or importer contain specified amounts of renewable fuel. The required volume of renewable fuel would start at 2 billion gallons in 2003 and escalate to 5 billion gallons by 2012. JCT and CBO expect that most of the fuel produced to meet the requirements under the act would be corn-based ethanol. Because ethanol-blended fuels are taxed at a lower rate than gasoline, receipts to the Highway Trust Fund from motor fuels would be reduced. JCT estimates that enacting this provision would reduce net federal revenues by $42 million in 2003, about $1 billion over the 2003-2007 period, and about $4.8 billion over the 2003-2012 period.

Mandatory Electric Reliability Assessments. H.R. 4 would authorize the Federal Energy Regulatory Commission (FERC) to exercise authority over the reliability of the nation's electricity transmission system through the establishment of an Electric Reliability Organization (ERO). Under the act, FERC would select an organization to become the ERO based on several criteria, including the ability of the organization to charge fees. Because the ERO and the regional organizations created by it would be governmental in nature, CBO believes that the collection of these fees should be recorded as revenues in the budget. Based on information from the North American Electric Reliability Council (NERC), CBO estimates that net revenues collected by an ERO and its regional organizations would total about $310 million over the 2003-2007 period and about $730 million over the 2003-2012 period.

Other Provisions. Other provisions in the act would have a negligible impact on revenues. Specifically, title XXVI would disallow imports of petroleum products from Iraq. Based on data from the International Trade Commission, the Census Bureau, and other trade sources on petroleum imports, we expect that importers will use petroleum imports from other countries to compensate for reduced imports from Iraq, thus reducing revenues from customs duties by less than $500,000 each year.

The act also would establish several new civil penalties as discussed below. CBO expects that all of the penalty provisions would increase revenues by less than $500,000 each year. H.R. 4 would establish penalties for:

- Violation of electric reliability standards;
- Violations of the Federal Power Act;
- Failure to meet renewable energy generation requirements;
- DOE contractors for nuclear violations;
- Pipeline safety violations;
- Not meeting the standard established in the act for providing renewable fuels; and
- Failure to report greenhouse gas emissions to the Department of Commerce.

Direct Spending

The Senate-passed version of H.R. 4 would provide new borrowing authority for BPA; establish a new regulatory structure to manage the reliability of the nation's electricity transmission system; establish incentives for the use of certain renewable fuels that would result in savings to USDA crop programs; and create incentives for the use of certain technologies related to the use of coal to generate electricity. CBO estimates that the net effect of these provisions on the budget would be a decrease of direct spending of $17 million in 2003, an increase of $78 million over the 2003-2007 period, and a decrease of about $1.1 billion over the 2003-2012 period.

Borrowing Authority for BPA. Currently, BPA has the authority to borrow funds from the Treasury to finance its capital expenditures related to electricity transmission, power generation, and energy conservation projects. Such expenditures are repaid over time as BPA sells electricity to recoup its investments. Under current law, the agency can have up to $3.75 billion in debt outstanding at any time. At the end of fiscal year 2002, the agency is expected to have about $750 million in borrowing authority available under that ceiling. H.R. 4 would increase the ceiling on BPA borrowing by $1.3 billion, thus increasing the total debt that the agency could have outstanding at any one time to $5.05 billion.

Based on information from BPA regarding its infrastructure needs and current financial status, CBO expects that the increase in the bond ceiling would allow the agency to pursue infrastructure investments more quickly than it otherwise would and that it would use all of the new borrowing available to the agency under the act. In addition, we estimate that the agency would spend about $100 million more of its existing borrowing authority than assumed in our baseline estimate of spending under current law. Thus, we estimate that the new borrowing authority would result in additional spending of $20 million in 2003, $970 million over the 2003-2007 period, and $1.4 billion over the 2003-2012 period. Because BPA is required to operate on a cost recovery basis, additional spending resulting from new borrowing authority would be offset by additional receipts from electricity sales over the next 15 to 40 years.

Electric Reliability Organization. Based on information from NERC, CBO estimates that the newly formed ERO and its regional affiliates would spend between $75 million and $150 million a year. For this estimate, CBO assumes that spending by the ERO and its regional affiliates would start at $100 million a year and increase by the rate of anticipated inflation. Thus, we estimate that spending by the ERO would total about $412 million over the 2003-2007 period, and about $984 million over the 2003-2012 period. As noted above (under the "Revenues" section), CBO believes the ERO's collections and spending should be included in the federal budget because this new entity would conduct inherently governmental activities that could not be undertaken by a purely private organization.

Effect of Renewable Fuel Incentives on Farm Programs. H.R. 4 would establish tax credits for the production and use of biodiesel fuels, and would establish a mandate for the use of renewable fuels available in the market place (both discussed above). Because of the act's incentives to sell and use such fuels, JCT and CBO have estimated that use of these fuel mixtures would increase.

Because such fuel mixtures are derived from certain agriculture crops, demand for these crops would rise thus increasing prices; corn is used to make ethanol, and soybeans, corn, and a few other oilseeds are used to make biodiesel fuels. Higher commodity prices would result in lower costs of farm price-support and income-support programs administered by USDA.

CBO estimates the changes in demand for soybeans and other grains because of the biodiesel tax credit would reduce federal spending by $13 million in 2003, $106 million over the 2003-2007 period, and by $244 million over the 2003-2012 period. We estimate that changes in the demand for corn because of the expected increase in ethanol production from the renewable fuels mandate would result in a decrease in federal spending for crop subsidies of $44 million in 2003, $1.3 billion over the 2003-2007 period, and by $3.3 billion over the 2003-2012 period.

Use of Credits for Federal Payments by TVA and Rural Electric Cooperatives. The act would establish tax credits for electric power producers using certain clean coal and renewable technologies. Although exempt from taxation, TVA and rural electric cooperatives would be eligible to take such credits in the form of cash-equivalent credits that could be used to repay amounts they owe to the Treasury. We estimate that the provisions would cost $20 million in 2003 and $110 million over the 2003-2012 period.

CBO expects that TVA will make significant investments in pollution control and clean coal technologies over the next 10 years and thus would be eligible for certain cash-equivalent credits authorized by the act. TVA could use such credits to reduce its payment to the Treasury for past appropriations. TVA could then pass such savings on to its customers by lowering the price it charges for electricity. We estimate that this price adjustment would reduce TVA's power revenues by an average of $10 million a year beginning in 2004, when we expect the agency would revise its rates. Hence, CBO estimates that this provision would cost a total of about $90 million over the 2003-2012 period.

Rural electric cooperatives would be eligible for both the clean coal technology and renewable energy tax credits offered under the act. Based on information from industry analysts, CBO expects that rural electric cooperatives would make investments in technologies that would qualify for such credits over the next several years. The act would allow the credits to be sold or traded to certain other taxable entities, or used to prepay loans held by the federal government. For this estimate, we assume that around 15 percent of eligible cooperatives would prepay their federal loans with the Rural Utilities Service, rather than trade the credits.

The authority provided by the act to prepay federal loans with non-cash credits would be considered a loan modification. Under the Credit Reform Act, the cost of a loan modification is the change in the subsidy cost of the loan (on a present-value basis) because of the modified loan terms. CBO estimates that the cost of this provision would be about $20 million and would be recorded in 2003, when the modification would be authorized.

PREVIOUS CBO ESTIMATES

On April 1, 2002, CBO transmitted a cost estimate of S. 1979, the Energy Tax Incentives Act of 2002 as ordered reported by the Senate Finance Committee on February 13, 2002. It includes an estimate of many of the revenue and direct spending effects of tax provisions found in the Senate-passed version of H.R. 4. Because of enactment of H.R. 2646, the Farm Security and Rural Investment Act of 2002, the estimate of savings from agriculture subsidies related to biodiesel fuels has changed. The change is reflected in this estimate.

In addition, on November 13, 2001, CBO transmitted an estimate of the House-passed version of H.R. 4. The two versions of H.R. 4 have some revenue provisions in common, however our cost estimates for these two versions reflect their significantly different provisions.

ESTIMATE PREPARED BY:

Federal Costs:
Lisa Cash Driskill—energy provisions
Dave Hull—agriculture subsidies

Federal Revenues:
Erin Whitaker

ESTIMATE APPROVED BY:

Peter H. Fontaine
Deputy Assistant Director for Budget Analysis

G. Thomas Woodward
Assistant Director for Tax Analysis